INTERNATIONAL RECTIFIER

EXECUTIVE OFFICES • EL SEGUNDO, CALIFORNIA • PHONE OREGON 8-6281 • CABLE: RECTUSA

BULLETIN NUMBER	SR-282
PART NUMBER	SEE TABULATION BELOW
VOLTAGE RATING	.4 VOLTS
CURRENT RATING	60 - 120mA

SEE TABULATION BELOW

Ruggedized Silicon Solar Cell Modules

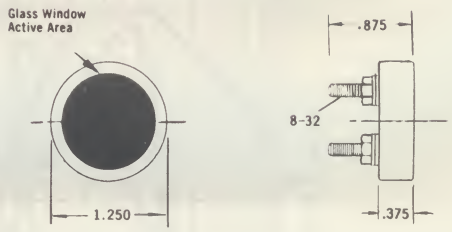
S2900 SERIES – ROUND TYPES

Designed for Interconnection To Supply Any Desired Power Rating

These silicon solar modules are basic building blocks designed for interconnection in series-parallel configurations to supply from milliwatts up to hundreds of watts of power for a wide variety of power applications. A typical installation can supply a charging current of from 25 mA to greater than 120mA at .4 volts in bright sunlight.

Mechanical Construction

The cells are embedded in epoxy resin providing a rugged, shockproof, weatherproof housing. Insulated solder terminals for electrical connection extend from the bottom of the module case.



All Dimensions in Inches

ELECTRICAL CHARACTERISTICS

MODULE TYPES	LOAD VOLTAGE VOLTS	LOAD CURRENT MILLIAMPS (MIN.)	POWER MILLIWATTS (MIN.)	EFFICIENCY
S2900E5M	.4	60	24	5
S2900E7M	.4	90	36	7
S2900E9.5M	.4	120	48	9.5

Current-Voltage characteristics are based on an illuminational level of 100 mw/cm² (bright average sunlight).

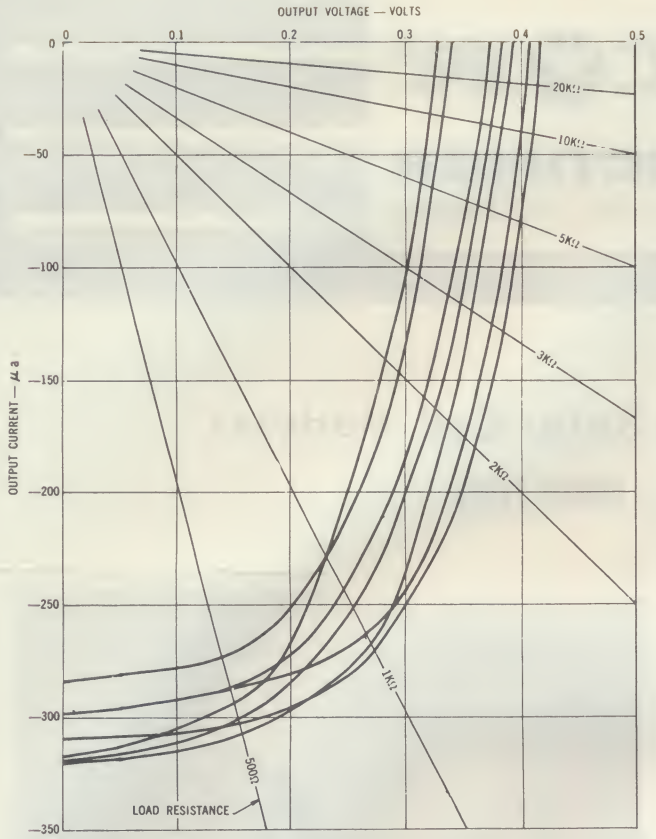


Fig. 1: Normal Variation in Current-Voltage Characteristics in Fourth Quadrant for Silicon Readout Cells at 600 foot-candles. Active Area 0.01 in.² Cell Temperature 25°C.

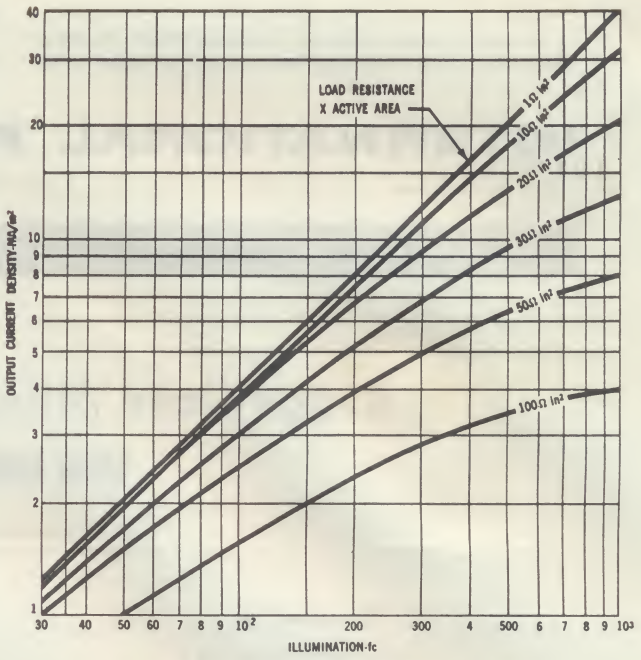


Fig. 2: Typical Output Current Density vs. Illumination Intensity at 25°C Cell Temperature (2800°K Tungsten)

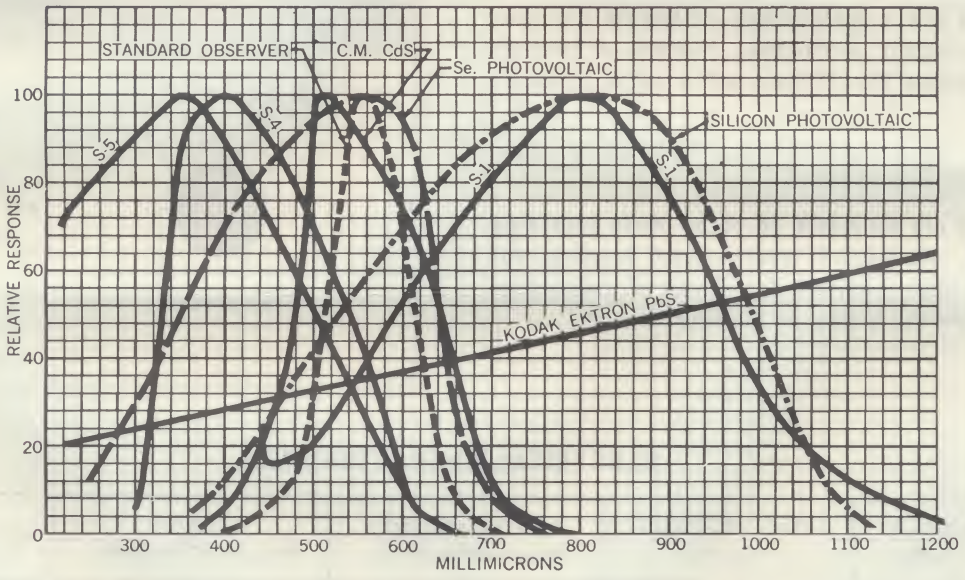


Fig. 3: Relative response of S-1, S-4 and S-5 phototubes, the standard observer, a Canadian Marconi cadmium sulfide photoconductive cell, a Kodak Ektron lead sulfide cell and selenium and silicon photovoltaic cells.

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